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24 October 1966

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MANAGEMENT GUIDES FOR
CONTROLLING INTELLIGENCE INFORMATION

Being the Findings of the
Panel on Handling Intelligence Information
Reported to the Plenary Session of the
THIRD INTELLIGENCE METHODS CONFERENCE


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22 September 1966

REPORT OF [REDACTED]
PANEL ON HANDLING INTELLIGENCE INFORMATION

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My colleagues and I have explored the growing problem of handling intelligence material. In doing so we have been impressed by the need to be guided by the text of Ecclesiasticus 32:8, "Let thy speech be short, comprehending much in few words...."

Accordingly, we reduced our field of inquiry to essentially three questions:

What are the dimensions of the so-called information explosion?

What meaning has it for us?

What can we do about it?

I.

We believe the term information explosion may be misleading if it gives the impression that a flood of wholly useful intelligence is upon us, for there is still an insufficiency of information on many subjects of intelligence interest.

NOTE: See also the paper presented to the Syndicate by [REDACTED] Controlling Intelligence Information, September 1966 (SECRET). This paper gives [REDACTED] views of trends in information, their impact upon intelligence, controls used, including the use and promise of advanced information processing systems. Conference participants included representatives of [REDACTED]

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We find that there indeed is a very appreciable increase in the amount and kind of material which must be handled if its intelligence content is to be extracted.

Printed matter generally is doubling in volume every 15 to 20 years. S&T literature has increased some 500% in the last 15 years. However, the amount of useful information has not increased proportionately, and much may be considered marginal.

Radio, TV and news broadcasts have increased very considerably. Radio Moscow has, for example, doubled its output in the last ten years, with a 70% increase in languages used. In the same period Radio Peking has quadrupled its output, and doubled the number of languages used.

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 have increased 50% in the past five years.

The state of the art in photographic reconnaissance has added a substantial new dimension and volume of its own. This currently requires the exploitation of millions of feet of film annually.

Additional increases are projected for these categories. Only in the case of traditional reporting of raw intelligence--Foreign Service, attache, clandestine and other human resources reports--has output stabilized.

New types of information are being received, and information is being received in new forms (sensors, image, analog,

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digital, electrical). Much of this flow is of substandard legibility and intelligibility, and this in itself is a serious problem.

Requirements for information are increasing as new areas and topics become important (Cuba, Latin America, Africa, South and East Asia, [REDACTED] Egyptian 25X6 missiles).

Crises are more frequent, are more widespread and are more sustained (Lebanon, Suez, Dominican Republic, Congo, Cuba, Indonesia, Vietnam).

The advent of efficient office copying devices has led to much secondary reproduction.

Security compartmentation is requiring the publication of multiple-editions of essentially the same coverage. In addition, the same information is often repeated in different publications going to the same customer.

Research and development staffs are hard at work devising complex new information sources and forms (foreign language processing, pattern recognition, speech and audio).

Moreover, planners have increased their demand for ad hoc production without as yet reducing the demand for the more staple production.

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II.

This increase in materials of widely varying quality has affected various elements of each of our intelligence communities. The impact has, however, been uneven, varying widely depending upon the source and type of information, as well as upon the use to which it is put. The nature of the problems created by this increase is little understood.

There is already much more information than most production analysts under pressure have the slightest possibility of trying to use. But this amount is not necessarily readily available to him, thus mitigating his handling problem.

Continuing pressure for concentrating the efforts of the analyst on current priority needs has virtually eliminated time formerly used to develop knowledge in depth of the national complexities of foreign countries. Insufficient advantage is taken of the output of others working on similar problems, whose own information base has in recent times been extended and who are now considerably better informed. Administrative duties are increasingly absorbing the time of the most experienced analysts. These often find themselves in supervisory positions before replacements of comparable experience have been trained.

The rise in topics to be covered has resulted in spreading analysts thinly. In addition, resources, some diverted from

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established activities, have been required to man new collection and information handling activities. Technical innovations, particularly in communications, have made it possible to report events as they are happening. The report from the field thus not only informs but often generates requests, creating an information-request-information cycle.

25X6 [REDACTED] the impact has been greatest and most direct upon analysts working in collection, data processing or in reference activities. These analysts in many ways serve as shield and buffer to the production analysts. It is these support analysts who face the huge data reduction problem or must cope with the cumulative effects of high volumes of information in the dissemination, storage and retrieval processes. In this situation, the impact upon the production analyst has been largely indirect. He has mainly been affected by the changing nature of the demands made upon him by his primary customers--the policymaker and the planner.

25X6 [REDACTED] the production analyst is less shielded from the impact of volume increases. In this situation, the production analyst must exert his own judgment as to the utilization of increased volumes of information.

The most economical use of limited linguistic resources is of major concern to each of us.

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In general, the production analyst has made few changes in his traditional approach to his tasks. In areas burdened by manpower shortages or by heavy or ad hoc production loads, he may tend to read more casually, to treat more information as background, to file fewer documents, and to cancel subscriptions. Some attempts have been made to share increasingly his burden with supporting EDP and reference staffs, particularly in the handling of hard information not also requiring the abdication of his evaluative responsibility.

In quantitative terms, the amount of material today flowing into the in-basket of the production analyst must be measured in hundreds of pages per day. This varies, [REDACTED] 25X6 example, from a low of 60 on China internal affairs, to a high of close to 3,000 on Vietnamese related affairs. The overall daily average is 300 pages, a load typical of that borne by many biographic, geographic, scientific, and economic analysts.

III.

We have formulated our proposed response to these developments and their impact as guides to you managers of intelligence activities. We believe these guides, by no means novel in themselves, merit more attention than they have received in the past.

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PROBE THE NATURE OF THE SO-CALLED INFORMATION EXPLOSION, WHICH IS REAL ENOUGH IN ONE SENSE, BUT UNEVEN AS TO ITS RELEVANCE AND ITS IMPACT UPON THE ANALYST.

Meaningful studies of the relative value and use made of information of different types or from different sources have never been undertaken. Nor have meaningful studies of the relative cost of acquiring and processing information been made.

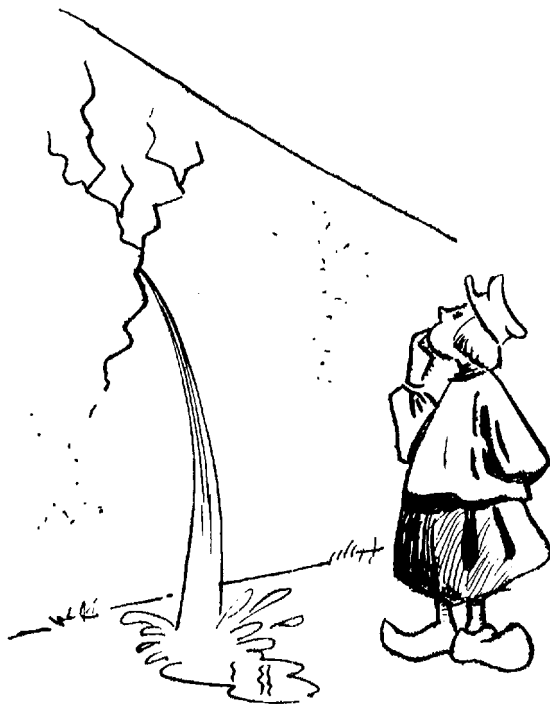
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AGGRESSIVELY SEEK MEANINGFUL CONTROLS TO BE IMPOSED AT THE SOURCES OF INFORMATION.

The physical capacity to accommodate receipts has too long been the main criterion for determining what would move into an analytical area. Promising advances in guiding collection should be extended to the guiding of what is admitted into the system.

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TAKE FULL ADVANTAGE OF THE EXPERIENCE OF OTHERS.

The problem of handling information is one common to all segments of our society. Academic institutions, industry, the government generally, and the scientific community are all making serious efforts to cope with it. Why not benefit from their efforts as much as we can? Certainly the information scientist and his discipline ought to be fully utilized in discharging the intelligence function.

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EXPLORE THE DIVISION OF LABOR IN LARGE, EASILY DEFINABLE PROGRAMS IN WHICH PARTICIPATING PARTIES HAVE MAJOR STAKES IN THE COMBINED OUTPUT.

Experience has shown that major gains can accrue to parties engaging in load-sharing. The long-standing arrangement between the [REDACTED] to share the 25X1C burden of monitoring the world's radio broadcasts is a prime example. In some other situations, results have not been uniformly good, the least satisfactory being those involving the acceptance of the selection of information and its evaluation by others in discharging ones own assigned responsibilities.

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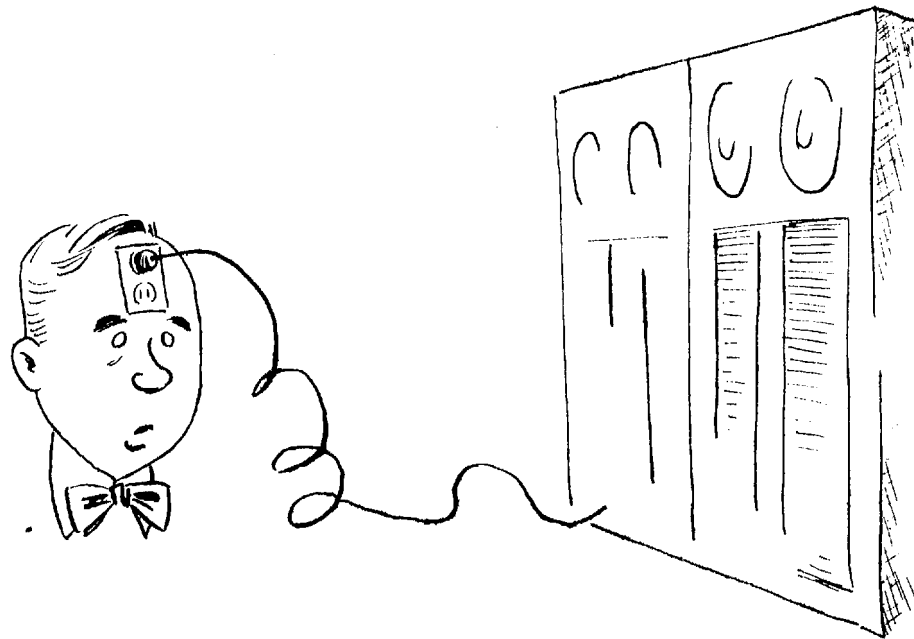
EXTEND THE ALL-SOURCE CONCEPT.

Implementation of the all-source concept embraces the several steps required to provide the physical environment within which fully cleared analysts can produce intelligence of the highest classification for consumers equally cleared to use it. Accompanying this must be persistent efforts to minimize the creation of new security compartments and the reduction of existing ones as soon as possible.

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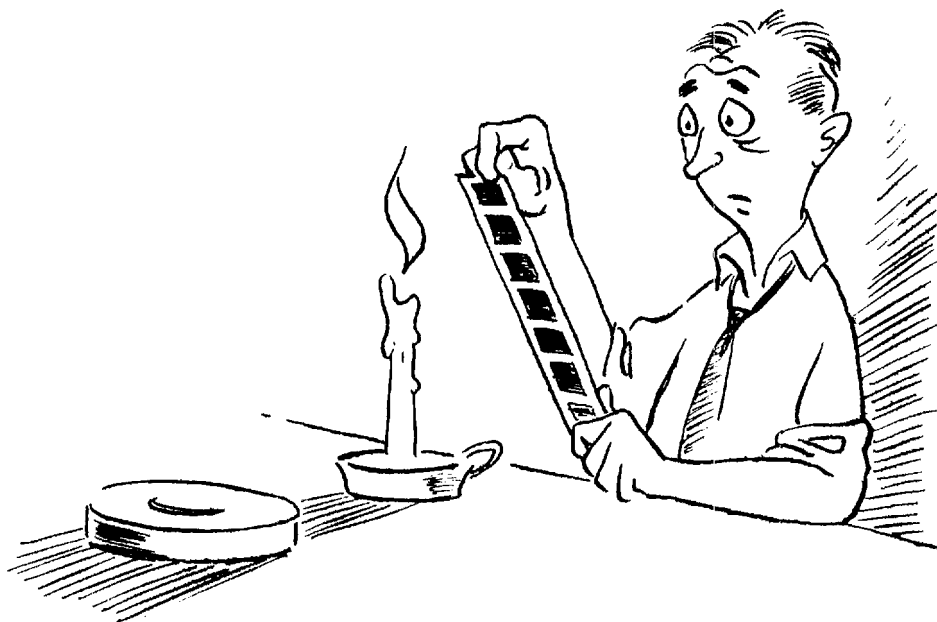
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ENGAGE THE TALENT OF YOUR BEST PRODUCTION ANALYSTS IN EXPERIMENTATION DESIGNED TO AUGMENT THEIR INTELLECT WITH MACHINE ASSISTANCE.

You do not leave it to your secretary to compose your letters simply because she can use a typewriter. Do not therefore leave the determination of how to use EDP equipment to the technician. This is the cause of past failures. Future successes will depend upon our being mindful of this proposition. At the same time, you may not count upon EDP for immediate financial economies or early manpower reduction.

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ENCOURAGE EXPERIMENTATION IN THE OPERATIONAL ENVIRONMENT ITSELF.

We have been slow to realize that the best place to conduct daring experiments in controlling information is our own shops. Thus piecemeal problems have been passed piecemeal to outside so-called experts. The result has been piecemeal solutions which somehow usually fall short because of the many constraints within which the contractor has had to conduct his study. Not only is there need for R&D done by operators in the operational environment, but operators should incur no greater opprobrium for failures in R&D so conducted than do the traditional R&D components for theirs. In a more limited sense, we would note as an example the success of experimental efforts to team up the analyst and the PI in the exploitation of reconnaissance photography.

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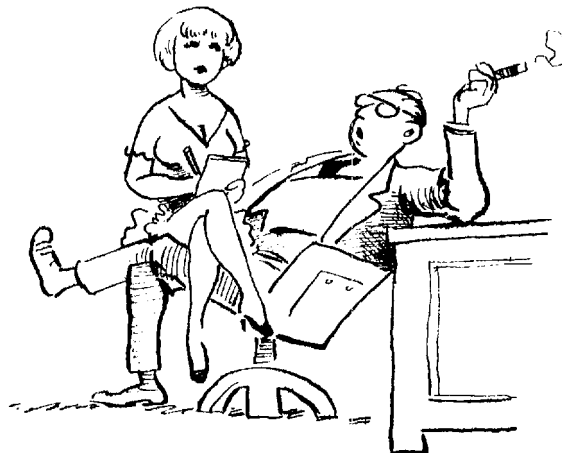


TUNE ORGANIZATIONAL ARRANGEMENTS TO GROWING VOLUMES OF INFORMATION AND THE ACCOMPANYING FRAGMENTATION OF KNOWLEDGE.

In the past, information creation and its control have not been a major consideration affecting how we organize. And it does not follow that we should now reorganize because of the information glut alone. We do believe, however, that organizational proposals should be evaluated on the basis of all significant factors, one of which is the impact of these proposals upon information control. This of course is another way of suggesting the total systems approach to the solution of management problems.

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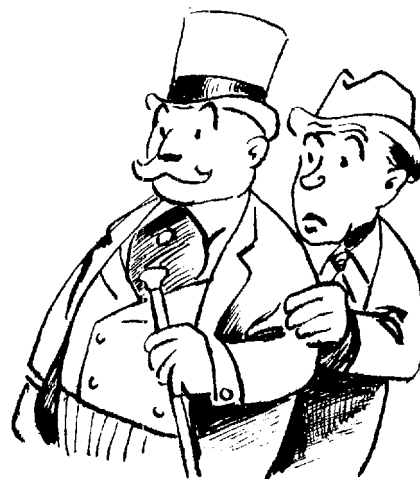


CREATE A SENSE OF PARTICIPATION IN NEW DEPARTURES AT ALL LEVELS.

This axiom of sound management is more easily quoted than followed. Its significance for us lies in the special need for integrating the programs of the various components handling information. We all know of cases of a superior committing production resources without a second thought as to the capability of processing personnel, upon whom three-quarters of the burden would fall, to support that production effort. Or of one component changing its mode of operation without regard for the adverse effect of this upon others. Each case is unique--but the principle is universal: involve those upon whom the success of the venture to better control information depends.

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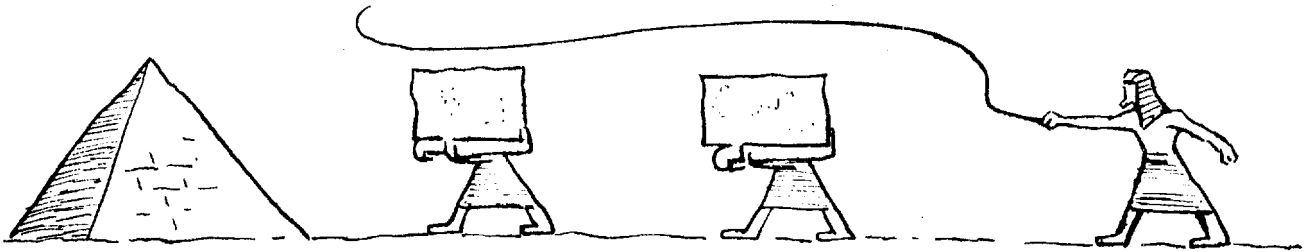


CHALLENGE THE ASSUMPTIONS WHICH UNDERLIE PRESENT THINKING AND
WAYS OF DOING BUSINESS.

Only thus will we ever review fundamentals. It is important to consider whether the dissemination of a report should be reduced or expanded. But it is more important to consider whether it should have been produced at all. And even more important to challenge the entire program of which it was a part. To mention an important example, we need to lay to rest meaningless generalizations about the virtues of compatibility. At the same time, we should be prepared to impose standardization in the face of the unjustifiable fears of local interests.

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DEVOTE SPECIAL ATTENTION TO, AND EXERT STRONG LEADERSHIP IN,
THE NEW INFORMATION FIELDS.

Inertia, doubts, reversals, standard approaches, exceptions, all have their places in the implementation of approved information control programs. But let's face it, information processing is not the part of our business likely to be of greatest interest to those in charge. Nor should it be to the detriment of the primary task of presenting timely, evaluated intelligence to responsible policy officials concerned with the national security. Nevertheless, the ability of intelligence chiefs successfully to discharge this primary task will increasingly depend upon how well things are managed at the lower reaches of the information pipeline. To assure yourselves that intelligence information is under control, you will have to become increasingly familiar with the problems, and with the techniques which promise solution. This may well require you to take sufficient specialized training to become more conversant with the new technology. In any event, be prepared to recognize that the processor of information, if he is to do what needs to be done, will require your full support.

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